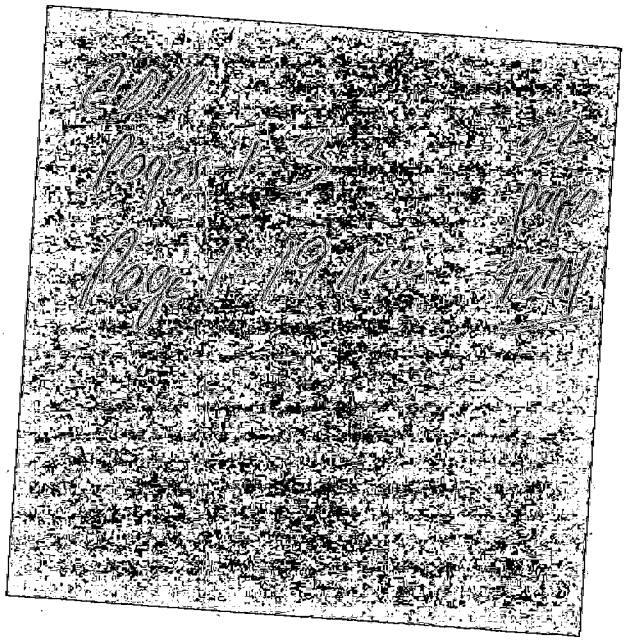


February 11, 1988

Rose Harvell
Project Officer
U.S. Environmental Protection Agency
401 M Street, Room 2834
Washington, D.C. 20460

PROJECT: EPA CONTRACT NO.: 68-01-7331
DOCUMENT NO.: T260-RO3-EP-BPPB-1
SUBJECT: Sample Visit Trip Report Report for Work Assignment 260
Raymark Industries, Incorporated
Manheim, Pennsylvania
T260-RO3-SR-BDPF-3

Dear Ms. Harvell:

Please find enclosed the Sample Visit Trip Report entitled, "Raymark Industries, Incorporated, Manheim, Pennsylvania," as partial fulfillment of the reporting requirements for this work assignment.

If you have any comments regarding this submittal, please contact Judith Matthews of Geoscience Consultants, Ltd. at (301) 587-2088 within two weeks of the date of this letter.

Sincerely,

CDM Federal Programs Corporation

Mark diFeliciantonio
Regional Manager

MdF/dmh

Enclosure

cc: D. Jeff Barnett, EPA Primary and Regional Contact, RCRA Region III
Lee Whitehurst, EPA HQ Coordinator, RCRA Region III
Michael P. Riley (letter only)
Harry P. Butler, CDM Federal Programs Corporation Deputy Program Manager
Anita Larson, Geoscience Consultants, Ltd. (letter only)

SAMPLE VISIT TRIP REPORT

RAYMARK INDUSTRIES, INCORPORATED
MANHEIM, PENNSYLVANIA

February 5, 1988

Prepared for:
U.S. ENVIRONMENTAL PROTECTION AGENCY
EPA REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

Work Assignment No.:	260
EPA Region:	III
Site No.:	PAD 003015328
Date Prepared:	February 5, 1988
Contract No.:	68-07331
Prepared by:	Geoscience Consultants, Ltd.
GCL Primary Contact:	Judith A. Matthews
Telephone No.:	(301) 587-2088
EPA Primary Contact:	Dana J. Barnett
Telephone No.:	(215) 597-6688

TABLE OF CONTENTS

LIST OF FIGURES

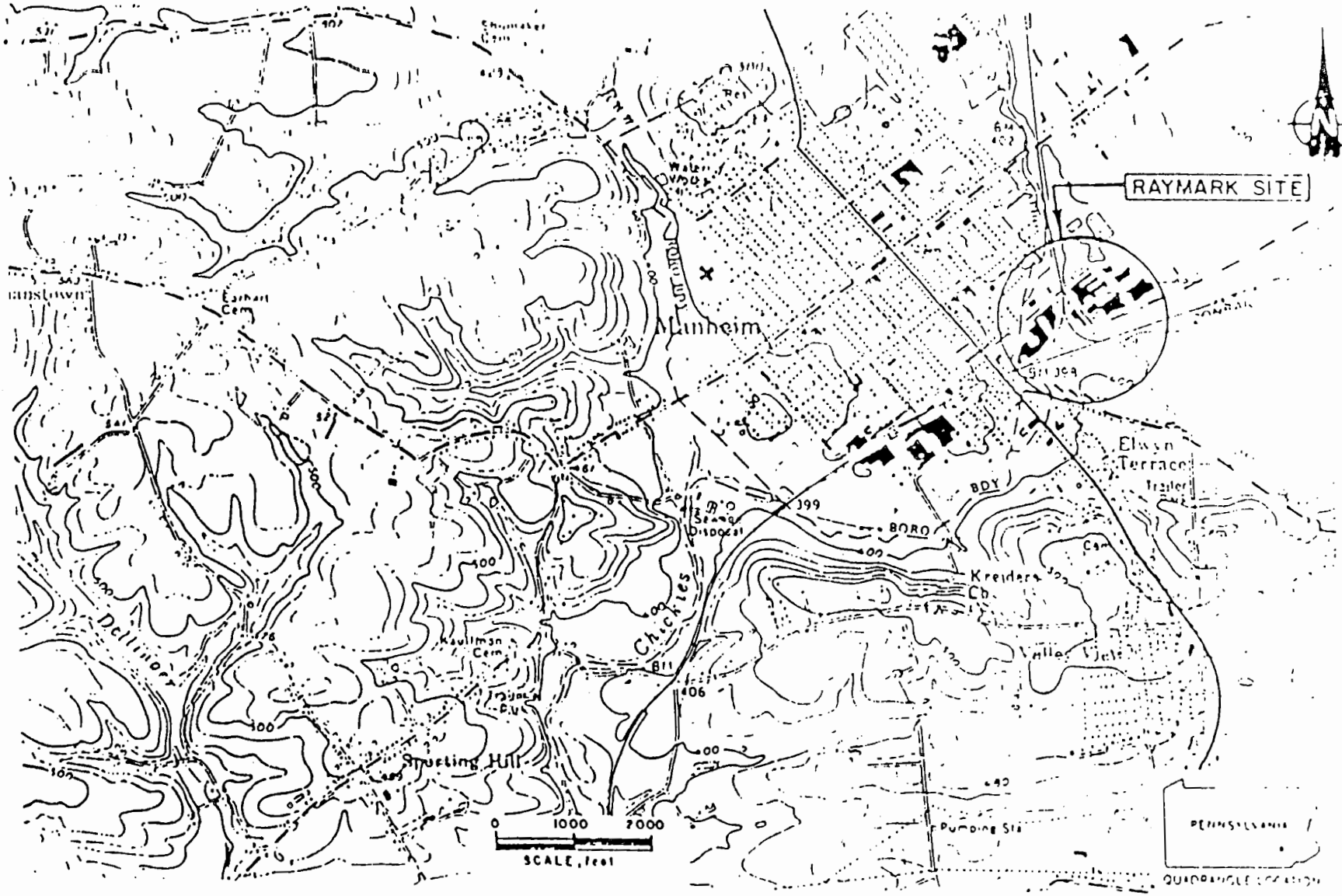
LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

This trip report describes the site activities that were conducted by Geoscience Consultants, Ltd. (GCL) in behalf of EPA during a RCRA Facility Assessment (RFA) Sampling Visit (SV) at Raymark Industries Incorporated (Raymark) in Manheim, Pennsylvania (see Figures 1-1 and 1-2). The purpose of the SV was to collect evidence which will allow EPA to determine if releases from Raymark's Solid Waste Management Units (SWMUs) #2, #3 and/or #5, have contaminated surrounding soils, ground water or surface water. The SV was conducted from August 19, 1987 through August 21,1987.

Included within this report is a detailed day by day account of the field activities (Section 2), a description of the deviations made from the approved Sampling Plan (Section 3), and a summary of findings from the field activities, (Section 4). Also included is specific information delineating the times and locations of sample collection activities; as well as copies of the shipping papers, Chain-of-Custody Forms, and Sample Traffic Reports.



Source: PA/SI (GCA, 1986)
Adapted from Figure 1 page 3

Figure 1-1
PORTION OF U.S.G.S. TOPOGRAPHIC MAP (MANHEIM) QUADRANGLE SHOWING
RAYMARK INDUSTRIES, INC. AND SURROUNDING AREA

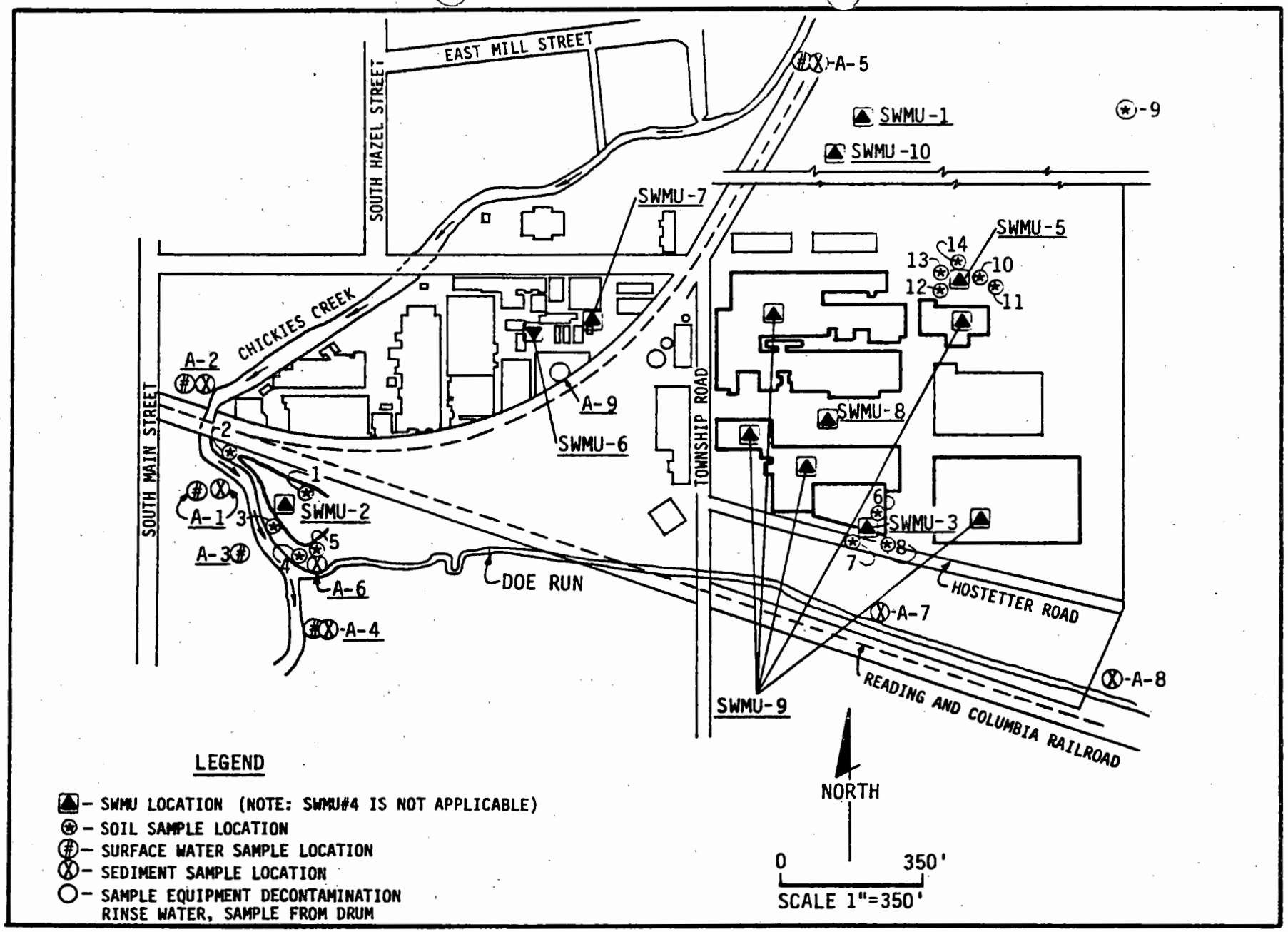


FIGURE 1-2

RAYMARK FACILITY MAP CONTAINING SWMU AND SAMPLE LOCATIONS

Table 1-1
Raymark Sampling Visit
8/19/87 through 8/21/87
Stream Sediment & Surface Water Sampling
Locations* and Descriptions**

Location Identifier	Location	# of Samples Collected/MATRIX
A-1	Chickies Creek 180 ft. south of southwest corner of Railroad Bridge crossing Chickies Creek	1 aqueous 1 sediment
A-2	Chickies Creek 2 ft. north of Railroad Bridge crossing Chickies Creek	1 aqueous 1 sediment
A-3	Chickies Creek 180 ft. south of southwest corner of Railroad Bridge crossing Chickies Creek (Duplicate aqueous sample of location A-1)	1 aqueous
A-4	Chickies Creek 50 ft. south of confluence of Doe Run and Chickies Creek	1 aqueous 1 sediment
A-5	Chickies Creek due west of northwest corner of Raymark's boundary fence	1 aqueous 1 sediment

Table 1-1
(Continued)
Raymark Sampling Visit
8/19/87 through 8/21/87
Stream Sediment & Surface Water Sampling
Locations* and Descriptions**

Location Identifier	Location	# of Samples Collected/MATRIX
A-6	Doe Run 60 ft. east of confluence of Doe Run and Chickies Creek	1 sediment
A-7	Doe Run 180 ft. due south of southeast corner of Raymark's Building 70	1 sediment
A-8	Doe Run 510 ft. east of location A-7 just east of concrete bridge	1 sediment
A-9	Rinse Water collected from drum contain- ing water used in sampling equip- ment decontamination process	1 aqueous***

* All surface water and sediment samples collected from eastern bank of Chickies Creek and northern bank of Doe Run. Locations are shown in Figure 1-2.

** All samples analyzed for BNA, VOC and total metals, except as noted

*** Analyzed for VOC and total metals only

Table 1-2

Raymark Sampling Visit

8/19/87 through 8/21/87

Stream and Stream Sediment

Sample Number, Times, and Dates of Sample Collection

Location Identifier	Matrix*	Organic Sample#	Inorganic Sample#	Date	Time
A-1	(A)	CK 374	MCK 673	8/19/87	1600
	(S)	CK 375	MCK 674		
A-2	(A)	CK 377	MCK 698	8/19/87	1714
	(S)	CK 376	MCK 699		
A-3	(A)	CK 378	MCK 700	8/19/87	1730
A-4	(A)	CK 379	MCK 696	8/19/87	1815
	(S)	CK 380	MCK 687		
A-5	(A)	CK 399	MCK 675	8/19/87	1726
	(S)	CK 398	MCK 676		
A-6	(S)	CJ 538	MCK 688	8/20/87	1510
A-7	(S)	CK 383	MCK 684	8/20/87	1630
A-8	(S)	CK 384	MCK 683	8/20/87	1645
A-9	(A)	CK 391	MCK 679	8/21/87	1000

* (A) = aqueous

(S) = sediment

Table 1-3
Raymark Sampling Visit
8/19/87 through 8/21/87
Soil Sampling Locations* and
Number of Samples Collected

Location Identifier	Location	Number of Samples Collected
1	Inside SWMU #2 129 ft. due south of railroad track 153 ft. southwest of telephone pole east of abandoned silo	1
2	Perimeter of SWMU #2 8 ft. west of Chickies Creek, 80 ft. south of southeast corner of railroad bridge crossing Chickies Creek	2
3	Perimeter of SWMU #2 13 ft. east of Chickies Creek, 180 ft. south of southwestern corner of railroad bridge crossing Chickies Creek	2
4	Perimeter of SWMU #2 15 ft. east of Chickies Creek, 285 ft. south of southeast corner of railroad bridge crossing Chickies Creek	2
5	Perimeter of SWMU #2 60 ft. east of confluence of Chickies Creek and Doe Run, 35 ft. north of Doe Run	2

Table 1-3 (Continued)
Raymark Sampling Visit
8/19/87 through 8/21/87
Soil Sampling Locations and
Number of Samples Collected

Location Identifier	Location	Number of Samples Collected
6	Inside SWMU #3 50 ft. west and 25 ft. south of southeastern corner of building 70	1
7	Perimeter SWMU #3 70 ft. west and 20 ft. south of southeastern corner of building 70	1
8	Perimeter SWMU #3 75 ft. west and 8 ft. south of southeastern corner of building 70	1
9	Background 50 ft. northeast of monitor well W-4 100 ft. north of gate in northeast portion of Raymark Boundary fence	2
10	Perimeter SWMU #5 40 ft. due east of Drum Storage Shed (SWMU #5)	1

Table 1-3 (Continued)
Raymark Sampling Visit
8/19/87 through 8/21/87
Soil Sampling Locations* and
Number of Samples Collected

Location Identifier	Location	Number of Samples Collected
11	Perimeter SWMU #5 40 ft. due east of Drum Storage Shed (SWMU #5)	1
12	Perimeter SWMU #5 45 ft. due north of northeastern corner of Drum Storage Shed (SWMU #5)	1
13	Perimeter SWMU #5 50 ft. due west of northwest corner of Drum Storage Shed (SWMU #5)	1
14	Perimeter SWMU #5 29 ft. due north of northeast corner of Drum Storage Shed (SWMU #5)	1

*All locations are shown in Figure 1-2

TABLE 1-4

Raymark Sample Visit

8/19/87 through 8/21/87

Soil Sample Numbers, Times, and Dates of Sample Collection

Location Identifier	GCL Sample#	EPA Organic Sample#	EPA Inorganic Sample#	Depth	Collection Date	Time
1	1	CK 373	MCK 672	20"-28"	8/19/87	1115
2	2-2A	CK 353	MCK 694	38"-44"	8/20/87	1230
	2-2B	CK 354	MCK 693	54"-60"	8/20/87	1250
3	3-3A	CK 400	MCK 692	42"-48"	8/20/87	1330
	3-3B	CK 355	MCJ 273	66"-72"	8/20/87	1340
4	4-4A	CK 397	MCK 691	12"-18"	8/20/87	1400
	4-4B	CK 356	MCK 690	32"-38"	8/20/87	1410
5	5-5A	CJ 536	MCJ 274	30"-36"	8/20/87	1445
	5-5B	CJ 357	MCK 689	54"-60"	8/20/87	1450
6	6	CJ 539	MCK 687	6"-12"	8/20/87	1610
7	7	CJ 540	MCK 686	36"-42"	8/20/87	1620

TABLE 1-4 (Continued)
Raymark Sample Visit
8/19/87 through 8/21/87
Soil Sample Numbers, Times, and Dates of Sample Collection

Location Identifier	GCL Sample#	EPA Organic Sample#	EPA Inorganic Sample#	Collection Depth	Collection Date	Collection Time
8	8	CK 382	MCK 685	6"-12"	8/20/87	1625
9	9-9A	CK 385	MCJ 275	12"-18"	8/20/87	1730
	9-9B	CK 396	MCJ 277	32"-38"	8/20/87	1740
10	10	CK 386	MCJ 281	Ground Surface to 6"	8/20/87	1750
11	11	CK 388	MCJ 276	Ground Surface to 6"	8/20/87	1755
12	12	CK 387	MCK 682	Ground Surface to 6"	8/20/87	1800
13	13	CK 389	MCK 681	Ground Surface to 6"	8/20/87	1805

Table 1-4 (Continued)
Raymark Sample Visit
8/19/87 through 8/21/87
Soil Sample Numbers, Times, and Dates of Sample Collection

Location Identifier	GCL Sample#	EPA Organic Sample#	EPA Inorganic Sample#	Depth	Collection Date	Time
14	14	CK 390	MCK 680	Ground Surface to 6"	8/20/87	1825

TABLE 1-5
Quality Control Samples
Raymark Site Visit
8/19/87 through 8/21/87

Type	Sample #	Analysis Requested	Dates Shipped
Trip Blank	CK 325	VOC	8/21/87
	CK 395	BNA	8/21/87
	MCJ 272	Total Metals	8/21/87
Field Blank	CK 381	VOC	8/20/87
	MCK 695	Total Metals	8/20/87

2.0 SITE ACTIVITIES

2.1 GENERAL INFORMATION

The Sampling Visit (SV) was conducted by a GCL sampling team comprised of Joseph Senita, Staff Scientist, and Gregory Contaldo, Engineering Geologist, from August 19, 1987 through August 21, 1987.

During the SV, GCL collected 34 samples, including QC samples, under the Contract Laboratory Program (CLP) Routine Analytical Service (RAS) case number 7807. GCL's samples totaled 26 solid and 6 aqueous environmental samples, and 2 QC samples. These were submitted to approved CLP laboratories for volatile organic compound (VOC); base, neutral, and acid (BNA) extractables; and total metals analyses. Samples collected for VOC and BNA extractable analyses were shipped to PEI Associates, Inc. Cincinnati, Ohio. Samples collected for metals analyses were sent to Hittman-Ebasco, Columbia, Maryland. See Appendix A for completed Organic and Inorganic Traffic Reports, Chain of Custody Forms, and Shipping Receipts.

Solid and aqueous sample location descriptions are listed in Tables 1-1 and 1-3 and are shown in Figure 1-2. Sample numbers, collection times and collection intervals are shown in Tables 1-2 and 1-4 and the corresponding chain of custody data is provided in Appendix A of this report. Quality control sample shipment dates, designated analytical parameters and sample numbers are listed in Table 1-5. Telephone records are provided in Appendix B of this report. All sampling team field activities are documented in GCL's field notebook. A copy of the field notebook is provided in Appendix C. Photographs from the SV are shown in Appendix D.

In general, all samples were obtained in accordance with GCL's approved Sampling Plan for this SV. Deviations from the approved Sampling Plan during the SV are discussed in Section 3.0 of this report. Specific daily activities are summarized in the following sections.

2.1.1 August 19, 1987

The GCL sampling team entered the Raymark site for the first time on August 19, 1987 at 0945 hours. The sampling team met with Raymark's Facility Engineering Manager, Mr. Dennis Weller. The Raymark representa-

tive informed GCL where to find the most convenient sources of water and electricity for equipment decontamination and assisted the sampling team in hooking up to the water and electricity. The equipment decontamination area was located between Raymark's building 34 and the Lebanon Branch of the Reading and Columbia Railroad (see Figure 1-2). Raymark also supplied GCL with two clean 55 gallon drums for collecting waste generated during the SV.

At 1045 hours the GCL team proceeded to location 1 (see Figure 1-2) and began sampling operations following the approved Sampling Plan. The sampling team continued activity until approximately 1500 hours when the team determined that a deviation from the Sampling Plan regarding the delineation of the downgradient boundary of SWMU#2 was needed. The deviation is discussed in greater detail in Section 3.0 of this report.

The sampling team ceased the collection of soil samples at SWMU#2 for this day while waiting for approval from EPA for the deviation. The remainder of the day was spent collecting all of the aqueous and sediment samples from Chickies Creek (see Tables 1-1 through 1-4 and Figure 1-2). The sample team exited the site at 2000 hours. Samples collected August 19, 1987 were shipped August 20, 1987.

2.1.2 August 20, 1987

The sampling team shipped samples collected on August 19, 1987 via Federal Express from Lancaster, Pennsylvania at 0930 hours and notified the Sample Management Office (SMO) that samples had been sent to the designated laboratories.

The sampling team contacted Mr. Jeff Barnett, TES III Primary Contract, EPA Region III and notified him of the proposed sample plan deviation at SWMU#2 at which time he approved the deviation (see Appendix B, Page 1).

The sampling team entered the site, notified Raymark's Facility Engineering manager of their presence on this date at 1100 hours and re-established the decontamination area. The sampling team proceeded to collect the remaining soil and sediment samples (see Tables 1-1 through 1-4) required by the Sampling Plan. One deviation from the Sampling Plan concerning the number and collection intervals of samples at SWMU#3

occurred at 1600 hours. Section 3.0 of this report describes this deviation in greater detail. The sampling team exited the site at 1930 hours. Samples collected August 20, 1987 were shipped August 21, 1987.

2.1.3 August 21, 1987

The sampling team entered the site at 0900 hours and signed Raymark's visitors log book. Raymark's Facility Engineering Manager was out of his office on this date; however, he had arranged for Mr. Ted Williams, Project Engineer, Raymark, to be GCL's Raymark contact for the remainder of the SV. The sampling team collected a sample of the waste water generated from the sampling equipment decontamination process (see Appendix B) completing sample collection at this site. Upon completion of sample collection activities the sampling team rechecked each test borehole and sampling location to make sure the facility would be left in a safe condition with all bentonite plugs placed in the boreholes. The sampling team's final task at the facility was to inform Raymark's Project Engineer that one 55 gallon drum, one-third full with excess borehole tailings from sample location 1, should be stored and labeled as hazardous waste until Raymark receives disposal instructions from EPA Region III. This is documented in the field notebook (see Appendix C) and signed by Raymark's Project Engineer. The sampling team exited the site for the final time at 0113 08/21/87.

The sampling team shipped samples collected on August 20, 1987 and August 21, 1987 to the a ppropriate laboratories via Federal Express from Lancaster, Pennsylvania at 1300 hours (see appendix A) and notified the SMO that a sample shipment had been made (see Appendix B, Page 2). This completed the SV.

3.0 DEVIATIONS FROM APPROVED SAMPLING PLAN

The approved sampling plan was deviated from on two occasions during the sampling visit. Aside from these two deviations the approved Sampling Plan was strictly adhered to. The first deviation involved the number of test holes augered to determine the downgradient boundary of SWMU #2; the second concerned the number and depth of samples collected at SWMU #3. All deviations from the sampling plan have been noted in the bound sampling visit field notebook (see Appendix C) and were approved by EPA, prior to implementation. These deviations are discussed in further detail in the following paragraphs.

The first situation which the sampling team felt required a deviation from the Sampling Plan occurred on August 19, 1987 at SWMU #2. The approved Sampling Plan called for the downgradient SWMU boundary to be determined by taking four downgradient sampling locations (see Figure 1-2). Upon inspection of the SWMU and making the required test borings at sample location 3, it was evident that the downgradient boundary of the SWMU followed the toe of a man-made embankment. Therefore, the sampling team did not feel that it was necessary to make test borings for delineation of the border of this SWMU at each of the three remaining locations (locations 2, 4 and 5, Figure 1-2). The sampling team notified Mr. Jeff Barnett, Primary Contact EPA Region III, on August 20, 1987 and informed him of the situation. The Primary Contact agreed that, in light of the fact that a visual boundary existed, additional test borings would not be necessary, thus approving the deviation from the Sampling Plan (see Appendix B). The sampling team then proceeded to collect the required samples at locations 2, 3, 4, and 5 from between Chickies Creek or Doe Run and the toe of SWMU #2.

The second deviation occurred at SWMU #3. The Sampling Plan required that two samples be collected from one bore hole inside SWMU #3 from depths of 12" and 36" below the ground surface. Auger refusal occurred at approximately 8" below the ground surface on four consecutive attempts from separate bore holes within the SWMU boundary. Very gravelly sand (possibly fill material) was causing the refusal. After the fourth attempt to meet the required interval the sampling team determined that

one sample should be collected from a depth of six inches below the ground surface so that enough sample could be collected to meet analytical requirements. A similar situation occurred at location 8, where the Sampling Plan called for one sample to be collected from a depth of 36" below the ground surface. However, due to auger refusal in the gravelly sand, the sample was collected from 6" below the ground surface after four attempts to reach the required depth.

4.0 PRELIMINARY SAMPLE VISIT RESULTS

Through visual observations made during the SV, GCL gained additional information concerning the physical characteristics of SWMU #2 and SWMU #3, waste contained in the SWMUs, and environmental media immediately adjacent to these SWMUs as detailed below:

- Visible asbestos fibers mixed in the soil from borehole cuttings at SWMU #3, locations 6,7, and 8 (see Figure 2-2) which was not anticipated. This SWMU was formerly an asbestos/lead slurry waste holding pit. According to the PA/SI, Raymark had backfilled the pit with clean fill. The source of the fibers is unknown.

- At SWMU #2, the center soil cover depth was only 8 inches (location #1) and on the downgradient slope the soil cover has a 2 foot depth. Rodent burrows into the downgradient slope have penetrated the soil cover and have physically deposited waste material on the bank of Chickies Creek.

- The waste in this SWMU is 10 feet deep at its center (location #1). Since the height of the slope of this SWMU is also approximately 10 feet high above the ground surface, GCL made a preliminary determination that this SWMU may be a waste pile rather than a landfill as described in the PA/SI.

These observations indicate that the waste in SWMU #2 may not be adequately contained. This, coupled with the fact the SWMU #2 is 18 feet east of Chickies Creek and 40 feet north of Doe Run, indicates that the potential for the unit to release into the streams may be significant. During the SV, field evidence indicated that a release had occurred at SWMU #2. The analysis of the samples collected during the SV will provide quantitative evidence regarding the extent of a release at SWMU #2, as well as provide evidence of release at any of the other sampled units. The quantitative data will be presented in the Final RFA Report.